



MDEQ, MDHHS, MACOMB COUNTY  
HEALTH, ADDITIONAL STATE  
AGENCIES HOSTING:

# CLINTON RIVER & LAKE ST. CLAIR COMMUNITY BRIEFING ON PFAS

---

Thursday, November 8th  
Doors open at 6:00 p.m.  
Main program to follow at 6:30 – 8:00 p.m.



# **Michigan's PFAS Response Lake St. Clair**

Tracy Kecskemeti

Michigan Department of Environmental Quality

Southeast Michigan District Office

248-200-6469

[kecskemetit@michigan.gov](mailto:kecskemetit@michigan.gov)

# PFAS – What's in a Name?

- PFAS – Per and Polyfluoroalkyl substances
- Previously called PFCs for Perfluorinated Compounds
- But PFCs can also mean Perfluorocarbons associated with greenhouse gases
- PFAS, PFOS, PFOA



# PFAS 101

What are PFAS?

- Group of chemicals used globally during the past half century in manufacturing, firefighting, and thousands of commercial and industrial uses.
- Stable, persistent and mobile
- Bioaccumulative
- Potential adverse health effects
- Emerging Contaminant





# Use of PFAS



**Aerospace**



**Apparel**



**Building and  
Construction**



**Chemicals and  
Pharmaceuticals**



**Electronics**



**Oil & Gas**



**Energy**



**Healthcare and  
Hospitals**



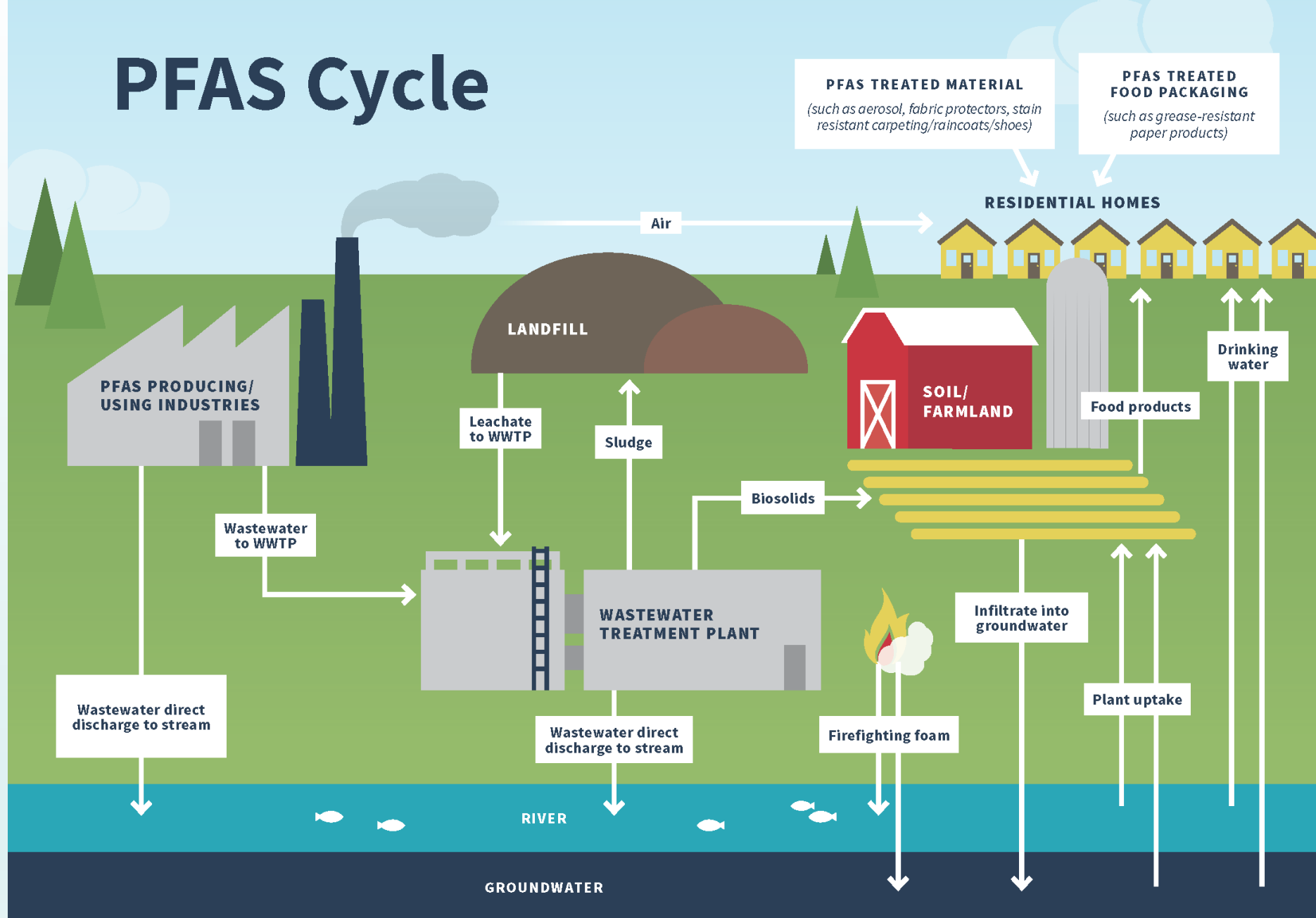
**Aqueous Film  
Forming Foam**



**Semiconductors**

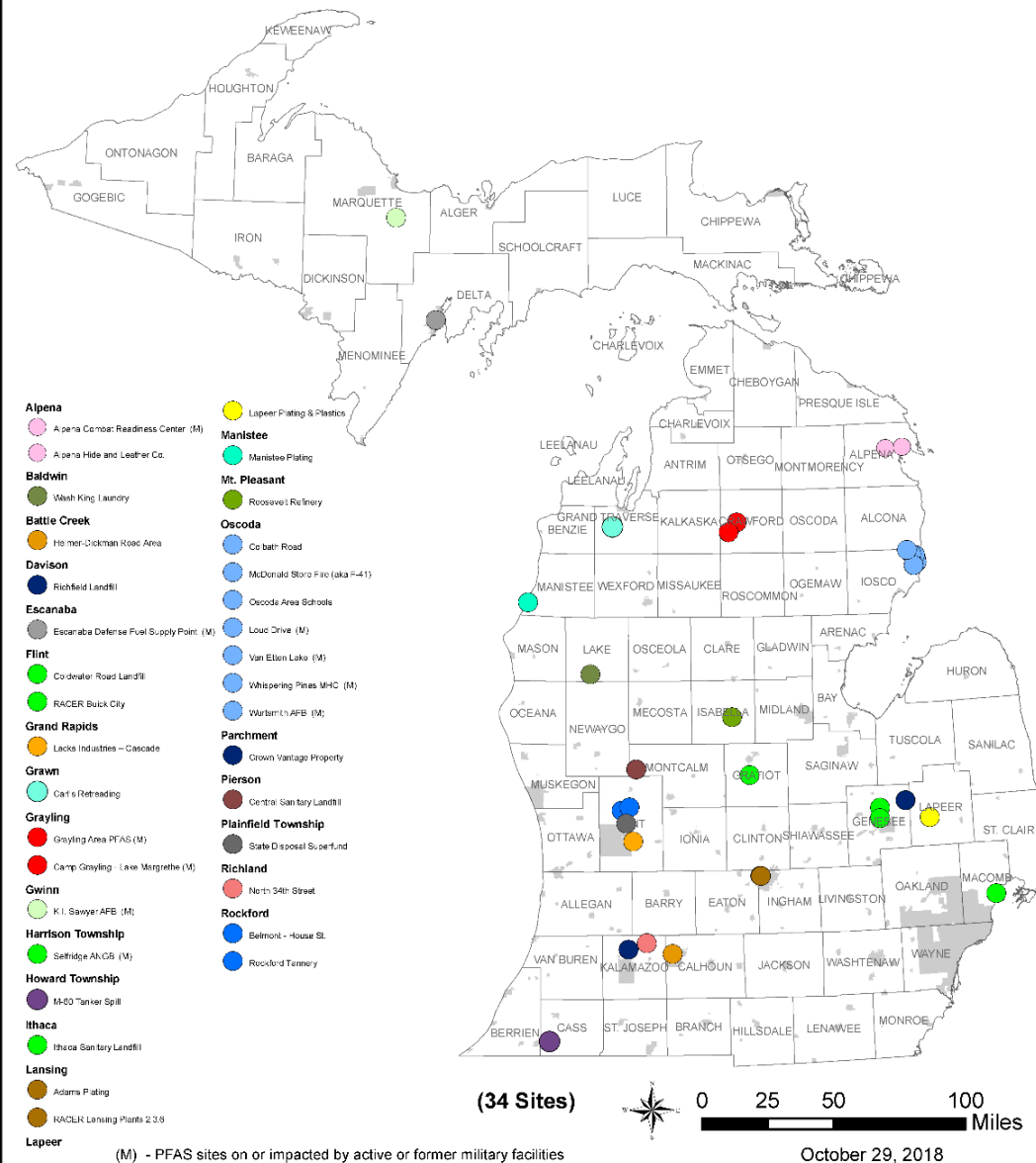


# PFAS Cycle





# Michigan PFAS Sites Being Investigated



# Known Sites

- Ensuring safe drinking water
- Ensuring safe fish consumption
- Determining extent of problem
- Finding & eliminating sources
- Working on remedies





# Proactive efforts

- Public drinking water supplies
- Surface Water
  - Ambient water sampling
  - Fish collection
- Wastewater
  - Industrial Pre-treatment Program
  - Biosolids
- Landfills
- Laboratory



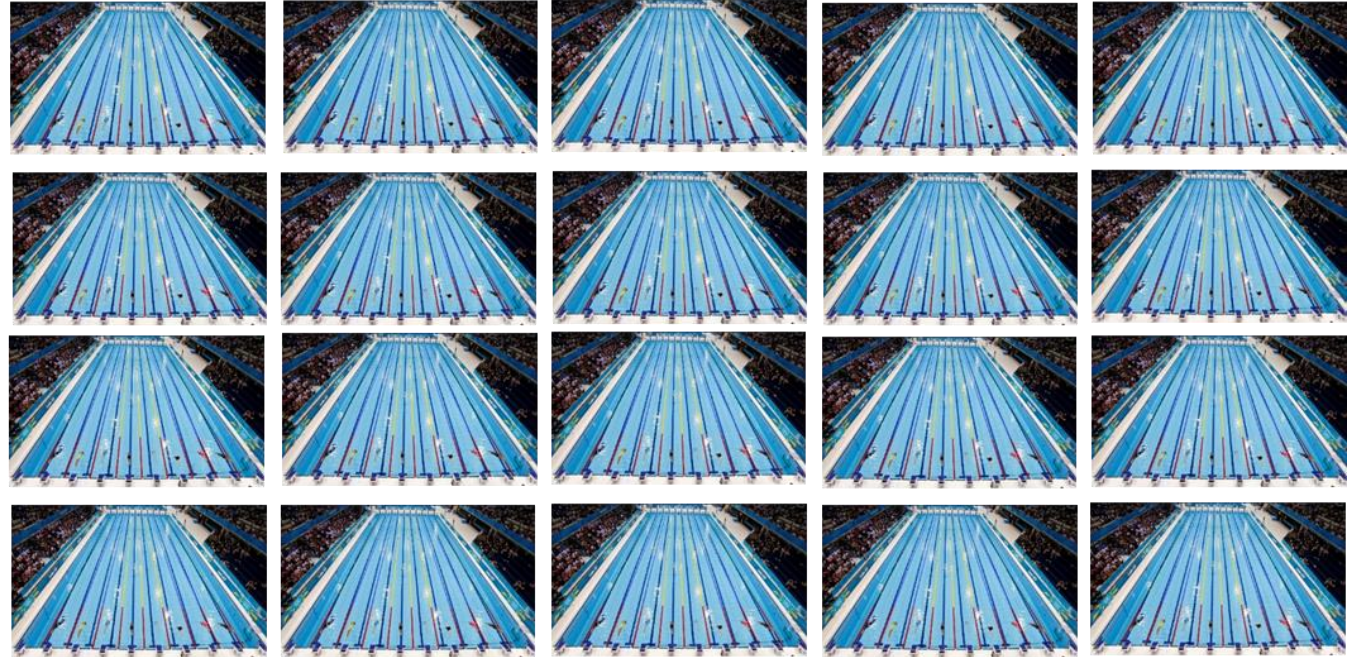
# Criteria and Guidelines

	PFOS + PFOA	PFOS	PFOA
Drinking Water	70 ppt	70 ppt	70 ppt
Groundwater	70 ppt	70 ppt	70 ppt
Surface Water	N/A		
Drinking Water Sources		11 ppt	420 ppt
Non-drinking Water Sources		12 ppt	12,000 ppt



# Parts Per Trillion

1 ppt = 1  
drop  
(0.05mL) in  
20 Olympic  
Swimming  
Pools



Note: 1 Olympic Pool = 660,000 gallons







# Lake St. Clair

---

- Water quality sampling
- Drinking water
- Source Investigations
- Fish consumption
- Recreation



# Legend

PFOS (ppt)

## Surface Water Sample

- Non-Detect
- >0 - 12
- >12

## Outfall Sample

- Non-Detect
- >0 - 12
- >12



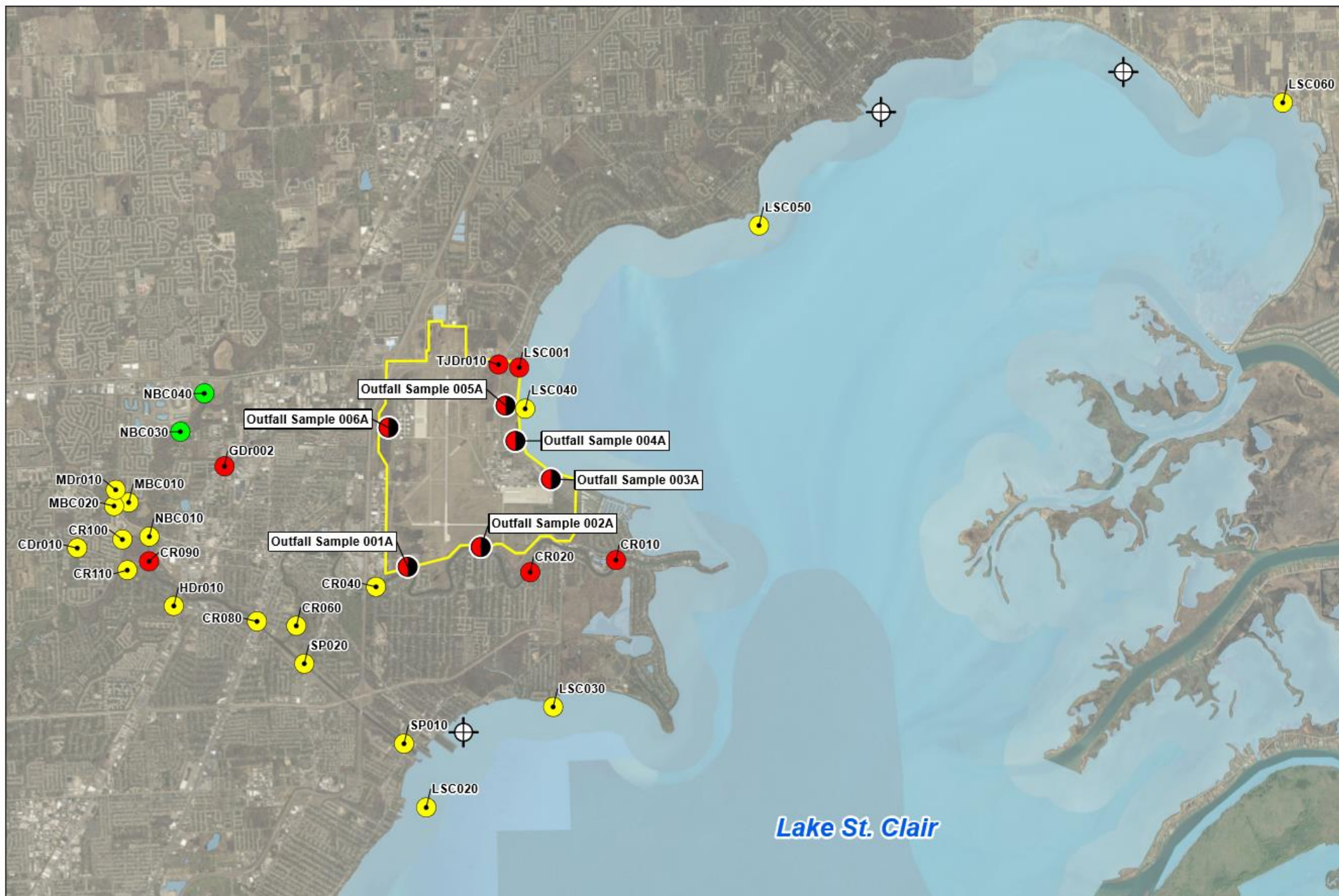
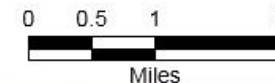
Surface Water Intake



Selfridge Air National Guard Base

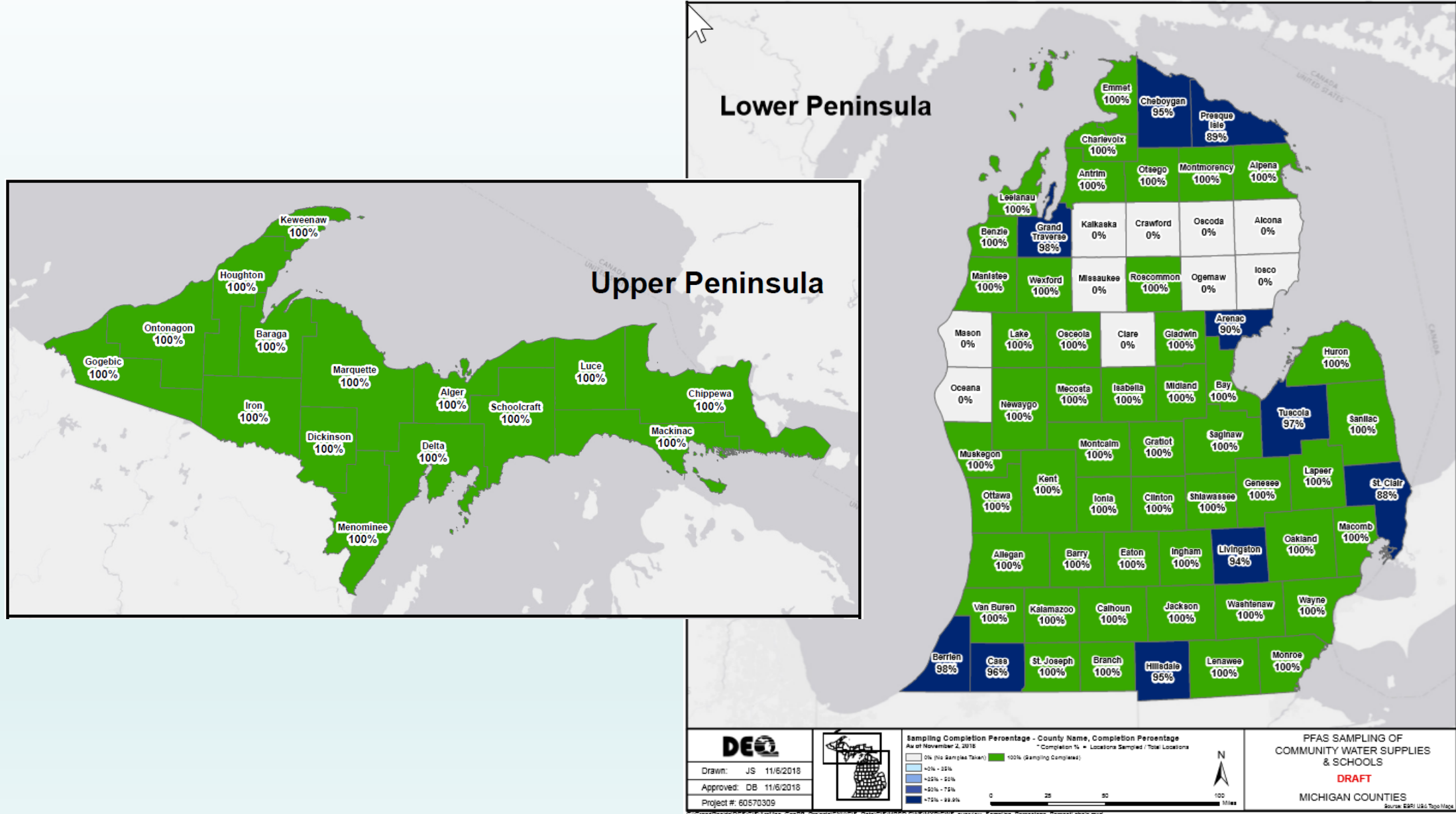
FIGURE 2  
SURFACE WATER  
SAMPLING RESULTS  
PFOS CONCENTRATION

LAKE ST. CLAIR/CLINTON RIVER  
MACOMB COUNTY, MI





# Public Drinking Water Testing







# Legend

## PFOA + PFOS (ppt)

- Non - Detect
- >0 - 10
- >10 - 70
- >70 - 1,000
- > 1,000

Selfridge Air National Guard Base



**FIGURE 3**  
WELL SAMPLING RESULTS  
PFOA + PFOS CONCENTRATION

LAKE ST. CLAIR/ CLINTON RIVER  
MACOMB COUNTY, MI



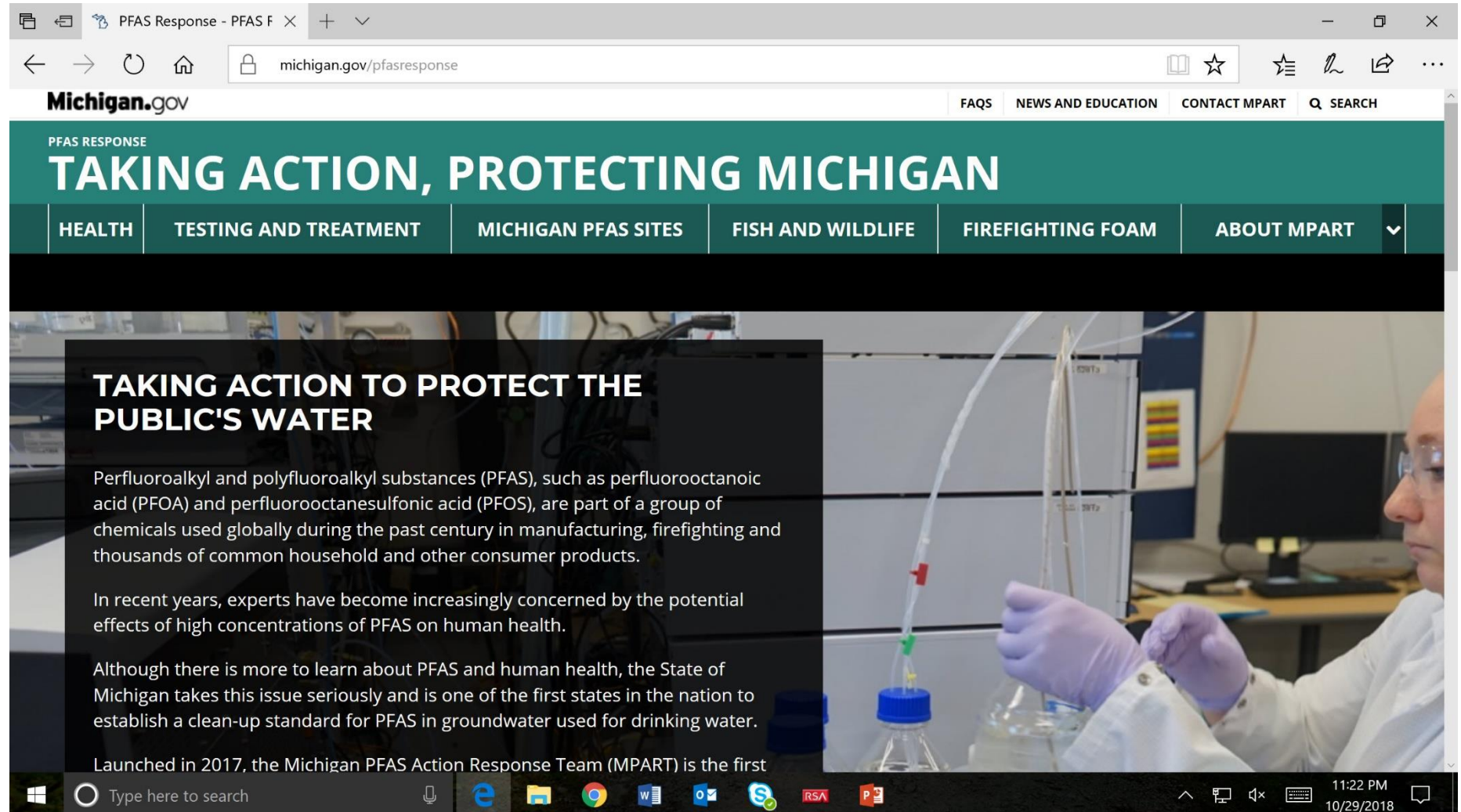
# What's next?

- Continue source identification efforts
- Additional sampling in the Clinton River
- Work with Selfridge ANGB on short term and long term solutions
- Completion of Public Water Supply testing
- Resampling of surface water intakes





[www.Michigan.gov/PFASreponse](http://www.Michigan.gov/PFASreponse)



PFAS RESPONSE

## TAKING ACTION, PROTECTING MICHIGAN

- HEALTH
- TESTING AND TREATMENT
- MICHIGAN PFAS SITES
- FISH AND WILDLIFE
- FIREFIGHTING FOAM
- ABOUT MPART

### TAKING ACTION TO PROTECT THE PUBLIC'S WATER

Perfluoroalkyl and polyfluoroalkyl substances (PFAS), such as perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), are part of a group of chemicals used globally during the past century in manufacturing, firefighting and thousands of common household and other consumer products.

In recent years, experts have become increasingly concerned by the potential effects of high concentrations of PFAS on human health.

Although there is more to learn about PFAS and human health, the State of Michigan takes this issue seriously and is one of the first states in the nation to establish a clean-up standard for PFAS in groundwater used for drinking water.

Launched in 2017, the Michigan PFAS Action Response Team (MPART) is the first

11:22 PM  
10/29/2018

